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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,942	04/30/2001	Gregory S. Snider	10003731	8637

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EXAMINER

EISEN, ALEXANDER

ART UNIT PAPER NUMBER

2674

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,942

Applicant(s)

SNIDER, GREGORY S.

Examiner

Alexander Eisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-17 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/30/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 7, 13 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Taylor et al., (“Taylor”), EP 1 045 586 A2.

With respect to claims 1, 13 and 15 Taylor discloses a system and method comprising a plurality of microphones 4 (FIG. 2) for receiving sound; a filtering unit 53 for directionally processing received sound; a converting unit 54 (see paragraph [0092]; FIG. 8) for converting filtered sound into display control signals; and a display unit 26 for displaying visual representation of the filtered sound based on the display control signals (paragraphs [0146], [0147]).

As to claim 7, the visual representation are text symbols (see FIGS. 18, 19; paragraph [0146]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 2, 4-6, 10, 11, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, as applied to claims 1, 7, 13 and 15 above, in view of Butnaru et al., ("Butnaru"), US 6,240,392 B1.

Taylor discloses a system and method comprising a plurality of microphones for receiving sound; a filtering unit for directionally processing received sound; a converting unit for converting filtered sound into display control signals; and a display unit for displaying visual representation of the filtered sound based on the display control signals.

Taylor does not disclose that at least one of the plurality of the microphones and the display unit is mounted on a frame configured for attachment to a human head. However, Taylor indicates that its method can be improved by positioning the microphones close to the participants, for example, attaching a microphone to the clothing of the participant, [0150].

Butnaru, on the other hand, teaches an attachment of a microphone 70 and a display 50 to a headband 120 attached to a user head, wherein the headband can be replaced by a glass frame or other supporting device.

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to use the attachment taught by Butnaru in the system of Taylor, because it would benefit to those who are hearing impaired and would allow them to participate in the presentation meeting as shown in FIG. 1 of Taylor.

In regards to claim 4, Butnaru teaches that the frame can be a glass frame (col. 3, lines 26-33).

As to claim 5, it is understood that the sound originated from a forward direction relative to the frame would be converted to a text for a person to see.

In regards to claim 6, even though Taylor does not specifically teach that the microphone are of omni-directional type, it would be known to those of ordinary skill in the art at the time of the invention that the microphones in Taylor are used for directional speech recognition and therefore have to be omni-directional (what actually the majority of microphones are), so they would not pick up the sounds outside the area of interest.

As to claim 10, Butnaru teaches that visual representation appears in the user's forward line of sight (col. 4, lines 3-14).

Claim 14 is the method claim corresponding to the apparatus claim 2 and therefore is similarly unpatentable over Taylor in view Butnaru.

Claim 16 is a means claim similar to claim 2 and is obvious over combination Taylor-Butnaru.

As to claim 17, both receiving means and displaying means, i.e. the microphone and the display, are mounted on the frame.

5. Claims 8, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor in view of Butnaru as applied to claim 10 above and further in view of Basson et al., ("Basson"), US 2002/0101537.

Neither Taylor nor Butnaru disclose that the filtered sound includes speech in a first human language, and wherein the converting unit converts the filtered sound into display control signals associated with text symbols in a second language, or that the visual representation is projected directly into a lens supported by the frame or onto a screen arranged directly in front of the lens.

Basson teaches a universal close caption personal receiver including glass frame supporting lenses and a microdisplay, which may project a text onto a lens or on a screen

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associated with the microdisplay, [0029]. Basson further teaches that the text can be translated before displaying to benefit to a person from a foreign country into a language understood by the person, [0031].

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to improve the system of Taylor-Butnaru with features taught by Basson, such as translating the text into a language understood by a person from foreign country, because it would allow the person to participate in the meeting.

As to claim 9, the foreign language translation taught by Basson relates to the foreign language which is obviously different from the original language it is translated from.

As to claim 11, Basson teaches projecting the text onto a lens supported by the frame.

As to claim 12, both Basson and Butnaru teach projecting the text on a screen positioned in front of the lens or projecting display.

Allowable Subject Matter

6. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: none of the references found by the examiner, either singularly or in combination, suggest modification or combination with the cited prior art so as to arrive to claimed subject of claim 3; none of the references teach or fairly suggest a system for converting sound into visual representation comprising a plurality of microphones for

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receiving sound; a filtering unit for directionally filtering received sound; a converting unit for converting filtered sound into display control signals; a display unit for displaying visual representation of the filtered sound based on the display control signals; and wherein the plurality of the microphones and the display unit are both mounted on the frame configured for attachment to a human head.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (703) 306-2988. The examiner can normally be reached on M-F (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on (703) 305-4709. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Eisen
Primary Examiner
Art Unit 2674

13 September 2004